

ABSTRACT

A sealing technique is provided for forming complex and multiple seal configurations for fuel cells and other electrochemical cells. To provide a seal, for sealing chambers for oxidant, fuel and/or coolant, a groove network is provided extending through the various elements of the fuel cell assembly. A source of seal material is then connected to an external filling port and injected into the groove network, and the seal material is then cured to form the seal. There is thus formed a "seal in place", that is robust and can accommodate variations in tolerances and dimensions, and that can be bonded, where possible, to individual elements of the fuel cell assembly. A release agent can be applied on the surface of fuel cell components or added to the seal material to enable the fuel cell stack to be easily disassembled and defective cells to be repaired without discarding the whole fuel cell stack.